

**RESULTS OF THE WATER QUALITY PARAMETERS OF THE INSTITUTE
(SAMPLING DATE 26/04/16)**

Parameters	Desirable Limit	Maximum Limit	P1	P2B	P3	P4	P7	P8	P9	P10	P11	P12
pH	6.5 to 8.5	No relaxation	7.6	7.3	7.7	7.8	7.6	7.4	7.2	7.2	7.3	7.8
TDS (mg/l)	500	2000	661	684	614	567	688	493	312	694	971	807
Hardness (mg/l)	300	600	110	210	100	150	160	170	350	310	320	220
Alkalinity (mg/l)	200	600	330	490	330	300	320	280	470	560	340	350
Nitrate (mg/l)	50	No relaxation	0.026	0.683	0.157	0.203	0.095	0.105	0.332	1.23	0.24	0.115
Sulfate (mg/l)	200	400	44.6	39.5	36.9	40.4	62.2	100.2	69.2	86.3	40.2	46.3
Fluoride (mg/l)	1	1.5	0.85	0.91	0.67	0.86	0.76	0.91	0.87	0.92	0.94	0.84
Chloride (mg/l)	250	1000	175	50	145	250	290	325	225	130	130	115
Turbidity (NTU)	5	10	0	0	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
Arsenic (mg/l)	0.01	No relaxation	0.0017	0.0010	0.0017	0.0010	0.0013	0.0014	0.0010	0.0005	0.0008	0.0018
Copper (mg/l)	0.05	1.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Cadmium (mg/l)	0.01	No relaxation	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Chromium (mg/l)	0.05	No relaxation	0.011	0.01	0.009	0.0080	0.0070	0.008	0.008	0.01	0.01	0.009
Lead (mg/l)	0.05	No relaxation	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Iron (mg/l)	0.3	1	0.121	0.120	0.101	0.123	0.213	0.154	0.104	0.173	0.121	0.122
Zinc (mg/l)	5	15	0.0043	0.0035	0.0045	0.0004	0.0041	0.03	0.03	0.016	0.0040	0.0025
Fecal Coliform (cfu)	0	0	0	0	0	0	0	0	0	0	0	0
E. Coli (cfu)	0	0	0	0	0	0	0	0	0	0	0	0

Sampling Locations: P1 – Opp. Type 2 shop-C near water tank, P2- End of lane 37 near house 4098, P3 – Behind Helicopter building, P4 – Behind SIS hostel/NCC, P7 - Near water tank and main entrance of VH-Extension , type-1, P-8 Near Health Centre, P-9 Near front parking area of Hall-9, P-10- Near water tank at right side of Hall-3, P-11 - Behind mess and inside of Hall-10, P-12 - Near about 150 Mtr. of P-2 (end of lane-36) at same lane.

***BDL Below Detection Limit; NTU – Nephelometric Turbidity Unit cfu - Colony forming Units in 100 ml of the sample
Detection Limits Pb 0.0001 mg/l, Cu 0.0001 mg/l, Cr 0.0005 mg/l, Fe 0.0001 mg/l, Cd 0.0004 mg/l, As 0.0001 mg/l, Zn 0.0005 mg/l***

TABLE 2 - VARIOUS HOSTELS LOCATIONS

Parameters	Hall 1	Hall 2	Hall 3	Hall 4	Hall 5	Hall 7	Hall 8	Hall 9	Hall 10	GH 1	GH2	RA1	RA2	VH	HC	New SBRA	Old SBRA
pH	8.3	8.2	7.8	8.5	8.5	8.4	8.7	8.3	7.9	8.2	8.3	7.9	8.6	8.6	7.8	8.4	7.9
TDS (mg/l)	675	678	685	671	631	618	659	99.4	677	677	616	612	466	468	733	738	33.3
Hardness (as CaCO ₃) (mg/l)	250	240	250	260	170	310	270	50	240	230	220	150	110	80	230	200	50
Alkalinity (as CaCO ₃ ²⁻) (mg/l)	420	410	420	420	350	440	390	590	330	430	380	360	370	50	380	330	60
Nitrate (mg/l)	.23	.11	.10	.14	.13	.15	.07	.06	.03	0.20	.05	.31	.09	.45	.31	.38	.59
Sulfate (mg/l)	64	50	63	58	89	41	67	21	69	58	62	39	53	14	84	82	13
Fluoride (mg/l)	0.91	0.92	0.89	0.85	0.90	1.1	0	0.59	0.92	0.81	0	.05	.87	.88	.23	.90	.88
Chloride (mg/l)	265	275	275	260	280	235	300	70	315	265	255	290	175	30	340	325	25
Turbidity (NTU)	0.002	0.001	0.001	0	0	0	0.01	0	0.02	0.01	0.01	.001	.002	0	.001	0	.001
Arsenic (mg/l)	0.0015	0.0018	0.0015	0.0016	0.0011	0.0011	0.0003	0.0017	0.0015	0.0027	0.0013	0.0003	0.0014	0.0015	0.0021	0.0008	0.0015
Copper (mg/l)	0.00007	BDL	0.0015	0.0002	BDL	BDL	0.0001	0.0006	0.0033	0.0005	0.001	0.0005	0.0003	BDL	0.00002	BDL	0.0003
Cadmium (mg/l)	0.00003	0.00003	0.00005	0.00002	0.00003	0.00002	BDL	BDL	0.0004	0.0003	0.0002	BDL	0.0003	0.00003	0.00002	0.00001	0.00002
Chromium (mg/l)	0.004	0.004	0.0037	0.003	0.003	0.003	0.0005	0.003	0.0043	0.0038	0.0039	0.0006	0.004	0.0014	0.002	0.0016	0.005
Lead (mg/l)	BDL	0.0032	BDL	BDL	BDL	BDL	BDL	0.02	BDL	0.000	BDL	BDL	BDL	BDL	BDL	0.0019	BDL

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Iron (mg/l)	0.241	0.238	0.176	0.142	0.229	0.154	0.088	0.164	0.176	0.252	0.136	0.236	0.2	0.139	0.274	0.266	0.133
Zinc (mg/l)	0.0063	0.017	0.23	0.015	0.013	0.056	0.11	0.081	0.12	0.069	0.039	0.047	0.017	0.0093	0.0046	0.024	0.0053
Fecal Coliform (cfu)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
E. Coli (cfu)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

TABLE 3 – VARIOUS RESIDENTIAL LOCATIONS

Parameters	T1 (249 B)	T2 (233)	T3D (3045)	T3F (3046)	T4 (448)	T5 (505)	T6 (623)	MultistoryB uilding-A (104)	MultistoryBuil ding-B (103)
pH	7.95	8.62	8.59	8.39	8.91	8.43	8.73	8.59	8.63
TDS (mg/l)	612	466	382	467	387	745	382	695	674
Hardness (as CaCO ₃) (mg/l)	150	110	110	120	120	180	80	240	270
Alkalinity (as CaCO ₃ ²⁻) (mg/l)	360	370	380	370	430	310	390	420	450
Nitrate (mg/l)	0.312	0.095	0.072	0.101	0.042	.101	0.23	0.29	0.11
Sulfate (mg/l)	39	53	51	69	45	59	37	87	98

Fluoride (mg/l)	0.815	0.902	0.959	0.982	0.947	.672	0.921	0.87	0.595
Chloride (mg/l)	290	175	165	150	115	335	105	240	210
Turbidity (NTU)	0	0.001	0.001	0.001	0.001	0	0.001	0.001	0.002
Arsenic (mg/l)	0.0017	0.0021	0.0027	0.0028	0.0023	0.0018	0.002	0.0013	0.0018
Copper (mg/l)	BDL	0.0003	0.00001	0.0002	0.0011	0.00001	BDL	0.0016	BDL
Cadmium (mg/l)	0.00002	0.00001	0.00002	0.00003	0.00003	0.00002	0.00002	0.00003	BDL
Chromium (mg/l)	0.0026	0.0022	0.0017	0.0025	0.0018	0.004	0.0012	0.0042	0.0033
Lead (mg/l)	BDL	0.0006	0.0009	BDL	BDL	BDL	BDL	0.0035	BDL
Iron (mg/l)	0.178	0.135	0.261	0.272	0.13	0.154	0.124	0.123	0.253
Zinc (mg/l)	0.0033	0.043	0.049	0.024	0.048	0.032	0.013	0.01	BDL
Fecal Coliform (cfu)	0	0	0	0	0	0	0	0	0
E. Coli (cfu)	0	0	0	0	0	0	0	0	0

Sampling locations: H1 to RA2 various hostels; VH- Visitors Hostel; HC- Health Centre;

T1 to T6 Residences with corresponding House Numbers.

Multistorey Building A &B- New faculty buildings with corresponding House Numbers.

BDL Below Detection Limit; NTU – Nephelometric Turbidity Unit; cfu - Colony forming Units in 100 ml of the sample

Detection Limits Pb 0.01 mg/l, Cu 0.001 mg/l , Cr 0.003mg/l ,Fe 0.005 mg/l , Cd 0.0004 mg/l, As 0.001 mg/l, Zn 0.0005 mg/l